Options Studio – Skyscrapers in Context

ARCH 464 | SPRING 2025 | NJIT
Tue, Thurs 12:00 pm - 5:20 pm
Instructor: Vincent Marchetto, AIA, *Principal at MHS Architecture*
Contact: vpm23@njit.edu

Office Hours:
In-person: 5:20PM – 6PM. Monday & Thursday
Zoom: 9am – 11am Weekdays

Course Description

A constant struggle in urban development is preserving the past while building for the future. This studio will investigate the challenges of creating new high-rise developments in and among sensitive historic buildings. The project will be completed in conversation with Jersey City Planning and the Journal Square Community Association. This will allow students to understand development from the perspective of the architect, the developer, the city, and the community. Sustainable high-rise design will be discussed and be required to be integrated into the final design.

Most importantly, students will have to critically create a narrative between the new and old structure. How do they relate? Do they blend? or stand apart? Cities across the world face this problem and this studio seeks to find out the best approach.

Class Calendar – Spring 2025*

**Please keep in mind that this calendar is subject to slight changes based on the pace of the studio. Also, field trips may be rescheduled based on weather.*

Week 1 – Course Intro		
Date:	**Topic:**	**Due:**
1/23/25	Introduction to the Studio	Select Case Study
Week 2 – Case Study Intro		
Date:	**Topic:**	**Due:**
1/27/25	Field Trip NYC	Attend Field Trip
1/30/25	Case Study – Desk Crit	Progress Review
Week 3 - Case Study Final		
Date:	**Topic:**	**Due:**
2/3/25	Case Study – Pinup	Progress
2/6/25	Case Study - Final Presentation at MHS – 20 PTs	PDF Presentation

Week 4 – Site & Program Selection		
Date:	**Topic:**	**Due:**
2/10/25	Lecture – Project Sites - Vincent	Update Case Study with final comments. Submit on canvas for grade.
2/13/25	Field Trip – Site Visits Jersey City	Attend Field Trip
Week 5 – Site Analysis		
Date:	**Topic:**	**Due:**
2/17/25	Site Analysis - Desk Crits	Site Diagrams
2/20/25	Site Analysis - Pinup	PDF Presentation
Week 6 – Massing		
Date:	**Topic:**	**Due:**
2/24/25	Historic Design Lecture	3D massing model
2/27/25	Massing Model Pinup	PDF Presentation
Week 7 – Concept Plan		
Date:	**Topic:**	**Due:**
3/3/25	Concept Plan – Desk Crit	Concept plan
3/6/25	Concept Plan – Pinup	PDF Presentation
Week 8 – Mid-Term		
Date:	**Topic:**	**Due:**
3/10/25	Desk Crit	Progress Review
3/13/25	Mid Term – At MHS Architecture	PDF Presentation
Week 9 – High-Rise Core Design		
Date:	**Topic:**	**Due:**
3/24/25	High Rise Design Lecture	Updates from Midterm
3/27/25	Desk Crit	Typical Floor Plan
Week 10 – Façade-Design		
Date:	**Topic:**	**Due:**
3/31/25	Façade Design Lecture	Finalized Core Layout
4/3/25	Desk Crit	Elevations
Week 11 – Contextual/Placemaking Design		
Date:	**Topic:**	**Due:**
4/7/25	Placemaking Lecture	Updated Elevations
4/10/25	Desk Crit	Historic Base Elevations

Week 12 – Structural Design		
Date:	**Topic:**	**Due:**
4/14/25	Structural Design Lecture - Mukesh	Updated Historic Base Elevations
4/17/25	Desk crit	Column and Shear Wall Layout
Week 13 – MEP Design		
Date:	**Topic:**	**Due:**
4/21/25	MEP Design Lecture	Updated Structural Plans
4/24/25	Class Pinup	PDF Presentation
Week 14 – Desk Crits		
Date:	**Topic:**	**Due:**
4/28/25	Desk Crit	Progress Review
5/1/25	Desk Crit	Progress Review
Week 15 – Final		
Date:	**Topic:**	**Due:**
5/5/25	Final Reviews – 30 PTs at MHS Architecture	Final Assignment
5/6/25	Final Reviews – 30 PTs at MHS Architecture	Final Assignment

Statement on Academic Integrity

"Academic Integrity is the cornerstone of higher education and is central to the ideals of this course and the university. Cheating is strictly prohibited and devalues the degree that you are working on. As a member of the NJIT community, it is your responsibility to protect your educational investment by knowing and following the academic code of integrity policy that is found at: NJIT Academic Integrity Code.

Please note that it is my professional obligation and responsibility to report any academic misconduct to the Dean of Students Office. Any student found in violation of the code by cheating, plagiarizing or using any online software inappropriately will result in disciplinary action. This may include a failing grade of F, and/or suspension or dismissal from the university. If you have any questions about the code of Academic Integrity, please contact the Dean of Students Office at dos@njit.edu."

Assignment Weights

Case Study	20%
Site Analysis	20%
Physical Model	10%
Midterm Review	20%
Final Project	30%

AI Policy

The usage of artificial intelligence (AI) is permitted in this course, and no citation is necessary for images. Please try to avoid using AI for text generation. If you have any questions or concerns about AI technology use in this class, please reach out to your instructor prior to submitting any assignments.

Case Study Project List:

Project Name	Architect	Location	Date
Domino Sugar Factory	SHoP Architects	New York City	2023
Hearst Tower	Norman Foster	New York City	2006
111 W. 57th St.	SHoP Architects	New York City	2022
St. John's Terminal	Cooke Fox Architects	New York City	2024
One Madison Avenue	KPF Architects	New York City	2024
837 Washington St.	Morris Adjmi Architects	New York City	2014
Wythe Hotel	Morris Adjmi Architects	New York City	2012
Battersea Power Station	Giles Gilbert Scott, WilkinsonEyre	London	2022
Tate Modern Museum	Giles Gilbert Scott, Herzog & de Meuron	London	2000
Coal Drops Yard	Heatherwick Studio	London	2018
Promenade Plantée René-Dumont	Jacques Vergely and Philippe Mathieux	Paris	1993
CaixaForum	Herzog & de Meuron	Madrid	2008
Las Setas de Sevilla	Jurgen Mayer	Seville	2011
Elbphilharmonie	Herzog & de Meuron	Hamburg	2017
Frøsilo	MVRDV	Copenhagen	2005
Danish National Maritime Museum	BIG Architects	Copenhagen	2013
Port House	Zaha Hadid Architects	Antwerp	2016
The Royal Ontario Museum	Studio Libeskind	Toronto	2007

Vincent Marchetto's Published Work

De Boer, Hans. *Onder Weg.* BNA Onderzoek, 2014 – p.164-165

Maas, Winy, Ulf Hackman, and Adrien Ravon. The Why Factory: Barba, Life in the Fully Adaptable Environment. Nai010 Publishers, 2015. p. 190-195.

Link to Vincent's Master Thesis. Completed at TU Delft in 2015.
https://repository.tudelft.nl/islandora/object/uuid%3Ab6bced76-1265-42f6-85b7-46853f283cee?collection=education

Software Used in Class

3D Modeling	– Rhino 7 / Grasshopper
BIM	– Revit
3D Printing / Slicing	– Cura
Research	– Microsoft 365 Suite
Presentations	– Adobe Creative Suite